

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Currently amended) A digital communication system ~~for processing at least one of cell and packet information, the digital communication system comprising:~~

~~at least one node~~ a plurality of nodes interconnected through a fabric, ~~the at least one node comprising:~~

a plurality of network processing devices, at least one network processing device for receiving ~~at least one of the cell and the packet~~ digital information, for determining a destination within the node for the ~~cell and the packet~~ digital information, and for ~~at least one of routing and forwarding~~ providing the ~~cell and the packet~~ digital information to the destination;

a shared bus structure for coupling each of the network processing devices with each other; and

an interface for coupling the at least one network processing device with the fabric to support communication between nodes ~~via a coupling means different from the shared bus structure;~~

wherein each at least one node supports native transport of digital information to and from the fabric in a plurality of network protocols, including network protocols for transporting cell information and network protocols for transporting packet information;

wherein each at least one network processing device supports routing and forwarding of digital information within corresponding nodes in a plurality of network protocols, including network protocols for transporting cell information and network protocols for transporting packet information.

2. (Currently amended) The digital communication system of claim 1, wherein the destination is determined in response to at least one of stored routing rules and characteristics of the cell and the packet corresponding digital information.

3. (Canceled)

4. (Currently amended) The digital communication system of claim 1, wherein the each at least one of a plurality of network processing devices device performs the at least one of supports routing and forwarding on both the of cell information and the packet information simultaneously.

5. (Currently amended) The digital communication system of claim 1, wherein the at least one of a plurality of network processing devices device directly delivers the at least one of routing and forwarding the cell and the packet routed digital information into a memory of the destination.

6. (Currently amended) The digital communication system of claim 1, wherein the at least one network processing device supports peer-to-peer routing within corresponding nodes.

7. (Canceled)

8. (Currently amended) The digital communication system of ~~claim 7~~ claim 1, wherein the interface comprises at least one of a System Interface and a Maintenance Interface.

9. (Currently amended) The digital communication system of ~~claim 7~~ claim 8, wherein the interface comprises a multiplexer for creating a multiplexed stream ~~from the~~ at least one of the cell and the packet of digital information in relation to the System Interface and the Maintenance Interface.

10. (Canceled)

11. (Currently amended) The digital communication system of claim 1, wherein the at least one node further comprises:

a general-purpose processor in operative communication with the shared bus structure for at least one of controlling the plurality of network processing devices of the corresponding node and performing maintenance on the corresponding node.

12. (Canceled)

13. (Canceled)

14. (Currently amended) The digital communication system of claim 11, wherein the general-purpose processor supports peer-to-peer routing with at least one of the network processing devices of the corresponding node.

15. (Currently amended) The digital communication system of claim 1, ~~comprising:~~ wherein the interface comprises at least one external system input/output interface supporting at least one transport mechanism type.

16. (Currently amended) The digital communication system of claim 15, wherein the external-system input/output interface ~~supports at least one transport mechanism type,~~ the at least one transport mechanism type comprising at least one of Asynchronous Transfer Mode, Internet Protocol, and Frame Relay.

17. (Currently amended) A communication node, ~~for processing at least one of cell and packet information comprising:~~

a plurality of network processing devices, at least one network processing device for receiving at least one of the cell and the packet digital information, for determining a destination within the node for the cell and the packet digital information, and for at least one of routing and forwarding the cell and providing the packet digital information to the

destination, the destination determined in response to at least one of stored routing rules and characteristics of the cell ~~and the packet corresponding~~ digital information;

a shared bus structure for coupling each of the network processing devices with each other; and

~~at least one of a System Interface and at least one of a Maintenance Interface and an external system input/output interface~~ coupled to the at least one network processing device ~~via a coupling means different from the shared bus structure;~~

wherein the communication node supports native transport of digital information to and from other nodes of a communication network in a plurality of network protocols, including network protocols for transporting cell information and network protocols for transporting packet information;

wherein each at least one network processing device supports routing and forwarding of digital information within the communication node in a plurality of network protocols, including network protocols for transporting cell information and network protocols for transporting packet information.

18. (Canceled)

19. (Currently amended) The communication node of claim 17, wherein ~~the each~~ at least one of a plurality of network processing devices device performs the at least one of supports routing and forwarding ~~on both the of cell information and the packet~~ information simultaneously.

20. (Currently amended) The communication node of claim 17, wherein the at least one of a plurality of network processing devices device directly delivers the at least one of routing and forwarding the cell and the packet routed digital information into a memory of the destination.

21. (Original) The communication node of claim 17, wherein the at least one network processing device supports peer-to-peer routing within the communication node.

22. (Currently amended) The communication node of claim 17, further comprising:
a multiplexer for creating a multiplexed stream ~~from the at least one of the cell~~
and the packet of digital information, ~~the multiplexed stream is received through at least~~
~~one of a~~ in relation to the System Interface and a the Maintenance Interface.
23. (Currently amended) The communication node of claim 17, further comprising:
a general-purpose processor for controlling the plurality of network processing
devices, wherein the shared bus structure couples the general-purpose processor with
each of the network processing devices.
24. (Canceled)
25. (Canceled)
26. (Currently amended) The communication node of claim 17, ~~comprising:~~
~~at least one wherein the~~ external system input/output interface is supportive of at least
one transport mechanism type, the at least one transport mechanism type comprising
Asynchronous Transfer Mode, Internet Protocol, and Frame Relay.
27. (Canceled)
28. (Canceled)
29. (New) The digital communication system of claim 1 wherein each at least one
network processing device supports routing and forwarding of cell information and
packet information in parallel.
30. (New) The digital communication system of claim 1 wherein each at least one
node supports native transport of cell information and packet information
simultaneously.

31. (New) The communication node of claim 17 wherein each at least one network processing device supports routing and forwarding of cell information and packet information in parallel.

32. (New) The communication node of claim 17 wherein the communication node supports native transport of cell information and packet information simultaneously.

33. (New) A digital communication system, comprising:
a plurality of communication nodes interconnected through an interconnect fabric, at least one communication node comprising:

a plurality of network processing devices;

a shared bus structure coupling the plurality of network processing devices with each other; and

a plurality of interfaces, at least one interface coupling at least one network processing device with the interconnect fabric to support communication with other communication nodes of the plurality of communication nodes;

wherein the at least one network processing device receives digital information from the plurality of interfaces and the plurality of network processing devices, determines a destination for the digital information, and provides the digital information to the determined destination;

wherein each at least one communication node supports native transport of digital information to and from the interconnect fabric in a plurality of network protocols, including network protocols for transporting cell information and network protocols for transporting packet information;

wherein each at least one network processing device supports routing and forwarding of digital information within corresponding communication nodes in a plurality of network protocols, including network protocols for transporting cell information and network protocols for transporting packet information.

34. (New) The digital communication system of claim 33 wherein each at least one network processing device supports routing and forwarding of cell information and packet information simultaneously.

35. (New) The digital communication system of claim 33 wherein each at least one network processing device supports routing and forwarding of cell information and packet information in parallel.

36. (New) The digital communication system of claim 33 wherein each at least one node supports native transport of cell information and packet information simultaneously.